DOCUMENT RESUME

ED 250 255 SO 016 031

AUTHOR	Sublett, Michael D., Ed.; And Others
TITLE	An Atlas of Illinois State University Affairs.
INSTITUTION	Illinois State Univ., Normal. Dept. of Geography-Geology.
PUB DATE	84
NOTE	44p.
AVAILABLE FROM	Department of Geography-Geology, Illinois State University, Normal, IL 61761 ($1.00).
PUB TYPE	Collected Works - General (020) -- Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Behavior Patterns; *Geography Instruction; Higher Education; Social Science Research; *Space Utilization; *Spatial Relationship (Facilities); Surveys; *Use Studies
IDENTIFIERS	Illinois State University

ABSTRACT

Twelve reports on the spatial patterns present on the campus of Illinois State University are divided into three sections. Following an introduction, the first section focuses on behavioral patterns such as seating choices made in the university cafeteria or the classroom. Section II deals with the measures people take to save time. A microstudy of pathway usage, studies of jaywalking and choosing a path between two points, and a consideration of the degree to which people obey pedestrian traffic commands are included. The third section involves students choosing to carry out a particular course of action. Studies deal with the relationship between distance to school and bicycle usage, use of the library floors for study purposes, patronage of two fast food restaurants, and elevator use in the university library. Individual studies are accompanied by charts and graphs where appropriate. (LP)

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AN ATLAS OF ILLINOIS STATE UNIVERSITY AFFAIRS

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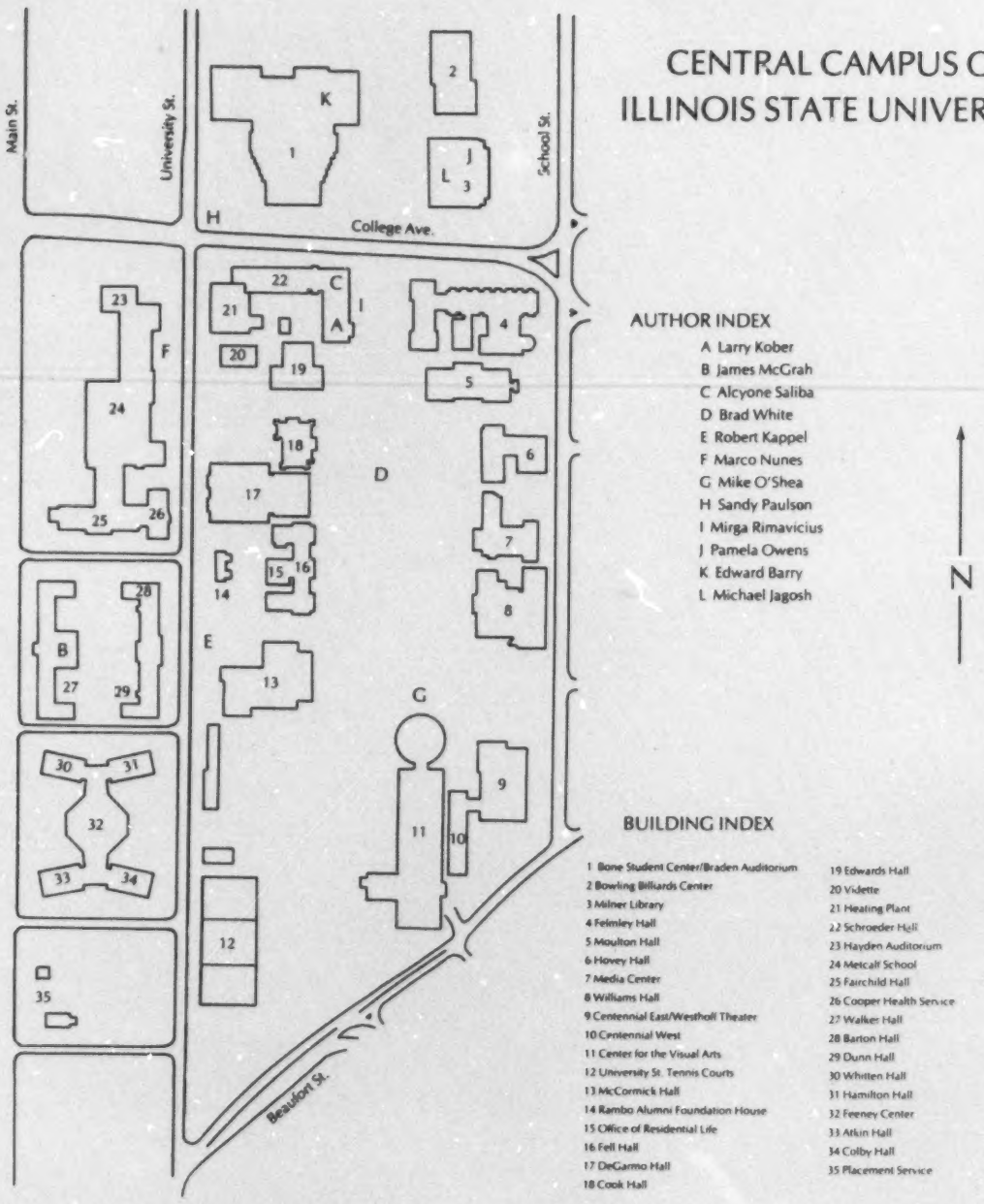

Fig. 1.--Location map. Drawn by Ellen Ferrara.

AN ATLAS OF ILLINOIS STATE UNIVERSITY AFFAIRS

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1984

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Published by the Department of Geography-Geology
Illinois State University
Normal, Illinois 61761

Copies of this publication are
available from the publisher
Price: $1.00

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PREFACE

Life requires an endless series of spatial decisions. Some are routine and repetitive. In which closet do I store the vacuum? Where do I place the love seat vis-à-vis the sofa and stereo? Do I mow the yard from the outside in, inside out, or diagonally? Do I ride my bicycle on a damp day across the safe but soggy floodplain of Sugar Creek or take the drier but congested and longer route along College Avenue? Other spatial decisions are made less frequently. Would Interstate 70 or Interstate 80 be the better route to Denver? Is a home in a rural residential subdivision a good idea, given the much greater distance I would have to travel to work, etc.?

Campus life also involves a lot of spatial decisionmaking by students, faculty, staff, and others who inhabit the academic world. Should I use the overpass to reach my destination--or go down to the stoplight? Am I cold enough to cut through Schroeder Hall on my way from the field house to the book store? If I sit on the floor outside my next class to study, am I going to be trampled by my peers as they change classes?

In the fall of 1983 the dozen members of the Field Geography class (GEO 310) under my direction set out to analyze some of the spatial patterns present on the campus of Illinois State University. In the process each was required to prepare a list of potential study ideas, choose one idea, formulate hypotheses, observe, ask questions, draw a map, write a preliminary report based on a pilot study, and submit a final report. They were not, however, required to test rigorously (statistically) their hypotheses due to time constraints and other considerations.

After the students had done their job, several others in the Department of Geography-Geology played a role. Editoral work was done by James McGrah and Ellen Ferrara (both graduate students) and by me. Cartographic advice was offered by members of the Advanced Cartography class (GEO 401) taught by Dr. Paul Anderson. Cartographic assistance, which for some student maps was critical and for others was insignificant, came from Cartographic Services (also under the direction of Dr. Anderson) and from Ms. Ferrara (under my direction). Special thanks go to Professors Jo Miller and Paul Mattingly for their comments about the project.

Michael D. Sublett
1 August 1984

INTRODUCTION

Altogether there are twelve reports in the atlas. These have been divided into three sections containing four reports each. The first section focuses on behavioral patterns, such as seating choices made in a university cafeteria or the way in which students arrange themselves in a classroom. Section II deals with the measures people take to save time, such as jaywalking or choosing a straight line between two points. Authors in the third section tried to ascertain why students chose to do one thing or take a particular course of action in preference to others.

The first section opens with a study of conversation patterns in Schroeder Hall's east lobby. Its author, Larry Kober, attempted to learn why conversations occur in the lobby and where they are begun. The author of the second piece in this section, James McGrah, attempted to illustrate that in a given university cafeteria there exists a strong degree of territoriality among the students from opposite halls who share the cafeteria. Next appears an analysis of the spatial arrangement of students in a classroom; in this, Alcyone Saliba's main objective was to determine where students sit and their reasons for choosing to sit there. The final report, by Brad White, deals with the distribution of informal sports activities on the Illinois State University quadrangle during the middle of November 1983.

All of the topics discussed in the second section illustrate the measures people will take in order to save time. The first paper is a microstudy of pathway usage at Illinois State University. In it Robert Kappel attempted to determine how frequently and why students walk on bicycle paths. A study of persons crossing University Street, by Marco Nunes, reveals the extent of jaywalking and the most commonly used desire line taken by jaywalkers. Similarly, the next study pertains to student desire lines across the Quad, north of the Center for the Visual Arts. Its author, Mike O'Shea, attempted to determine whether a significant number of students avoid the sidewalks and just travel in a straight line. The section's final paper, by Sandy Paulson, deals with the degree to which people obey the pedestrian traffic commands at the corner of University Street and College Avenue.

All four studies in the third section involve students choosing to do one thing or carry out a particular course of action. Mirga Rimavicius, the author of "Two Wheeling to Class: A Study of Bicycle Usage", attempted to determine if there was a threshold distance from ISU's campus for bicycle transportation. The next study deals with the use of the floors in Milner Library for study purposes. Its author, Pamela Owens, tried to determine

whether there was a particular floor in the library on which student members of social organizations (Greeks) tended to concentrate their studying at night. In "McDonald's Versus Crock 'N Roll: A Question of Time" Edward Barry provides the reader with a comparison of patron characteristics, like class standing and amount of time spent at ISU. The author of the final study, Michael Jagosh, showed that students tended to walk as far up as the fourth floor of Milner Library but tended to use the elevator to reach floors five and six.

James McGrah

SECTION I

CONVERSATIONS EQUAL CONGESTION: A STUDY OF CONVERSATION PATTERNS NEAR SCHROEDER HALL'S EAST ENTRANCE

Larry Kober
Normal, Illinois

Have you ever been in a hurry only to find your path blocked? Have you ever had to squeeze through what seemed to be a million people just to continue on your way? If you ever had class in Schroeder Hall that scene might seem familiar to you. The east lobby of Schroeder Hall has gained a reputation for being congested and overcrowded at certain times of the day. The problem in this area stems from the conversations that are continuously present in the lobby during the periods of heavy student traffic. I have walked through that lobby hundreds of times and have developed a hypothesis as to why these conversations cause so much congestion. My hypothesis is simply that the majority of conversations take place in areas such as in doorways and on staircases causing people to slow down or deviate from their intended path.

I decided that I would test my hypothesis by mapping conversations and recording the number of people participating in them. By doing this I hoped to prove that the majority of conversations in the east lobby of Schroeder Hall were indeed located in doorways and on staircases. The initial step in my research was to draw a map of the lobby. I next observed the area and mapped the approximate locations in which the conversations took place and the number of people involved. I selected times in which I expected a high volume of students to enter in and leave the building, and observed the lobby and its occupants for fifteen minutes before the beginning of classes. During one hour and fifteen minutes of observation, I mapped forty-seven conversations consisting of an average of 2.2 persons per conversation (Figure 2).

When I tabulated my data, I found that my hypothesis was not substantiated. Of the forty-seven conversations, only thirteen were located in those areas designated in my hypothesis. Upon further investigation, I noticed that the vast majority of conversations were started near air blowers located against the north and south walls. Since my hypothesis did not hold true, I looked for possible reasons why so many conversations started near the air blowers. As I watched the conversations, two activities seemed to act as catalysts in the conversation development. First, a person would often sit on the blowers while waiting for friends to come along. Second, students placed their books on the blowers while they put on their coats; when they

stopped to do this, they were often greeted by someone they knew and not infrequently a conversation followed.

I also wondered why twenty-three conversations originated near the north blower while only eleven started in the vicinity of the south blower. After a little deliberation I was able to explain this difference. The north staircase (leading to the second, third, and fourth floors) carries a much higher proportion of the student traffic than the south staircase which leads only to the first floor. Therefore, it appears logical to expect more conversations to originate on the north side rather than on the south side of the lobby. Even though these conversations took place in areas that seemed out of the way, it should be noted that they caused problems. When a group of three or more was established near the blowers, it caused passersby to deviate from their intended course. So, despite the fact that most of the conversations did not take place in doorways or on staircases, it appears that almost any conversation near the lobby will cause traffic difficulties.

In my research I only considered congestion in one particular area, but other areas on campus have problems similar to those at Schroeder Hall. When I asked randomly selected students about other locations where congestion due to student conversation is prevalent, I received a variety of answers. There were, however, three other locations mentioned most often: the south and the west entrances to Stevenson Hall and the entrance to Milner Library.

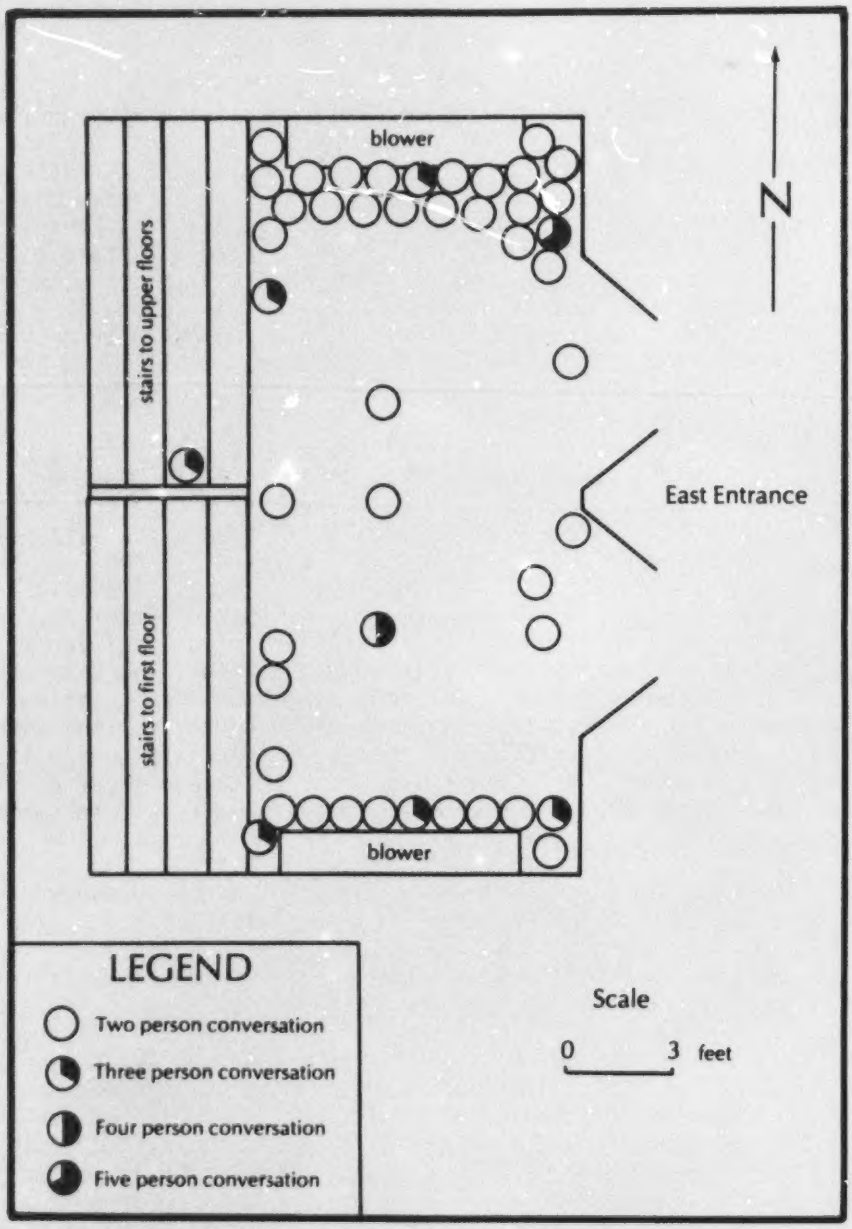

Fig. 2.--Conversations and number of participants at selected times during November 1983 near the east entrance to Schroeder Hall.

STUDENT CAFETERIA TERRITORIALITY: THEORY OR REALITY?

James McGrah
Kowloon, Hong Kong

On innumerable occasions humans exercise what they consider to be their territorial rights. Defensible action after some sort of territorial infringement is invariably conducted instinctively, and a person does not usually perceive that they have taken a defensive stand when they feel their personal space is threatened. In this paper I intend to take a closer look at one small aspect of territoriality and to determine whether it exists in an average university cafeteria. The cafeteria examined for this study was the one shared by two nearby Illinois State University residence halls--Walker Hall and Dunn-Barton Hall. An average of seven hundred students are present at each meal.

My aim was to try to provide evidence to prove or disprove the hypothesis that in the Walker/Dunn-Barton cafeteria, students from Walker Hall tend to sit in the northern part of the cafeteria segregated from those students from Dunn-Barton Hall who generally sit in the southern part. A simple questionnaire was devised to help me acquire data necessary for the analysis. I wanted to know which hall students lived in, the number of the table where they were sitting, how often they sat in the section of the cafeteria where they were sitting, how often they shared their table with students from the other halls, and whether they felt more comfortable in this particular section of the cafeteria. Further, I tried to obtain their opinion on whether students from opposite halls tend to sit in certain areas and avoid other areas.

Of the 215 questionnaires completed during the November 16, 1983, evening meal session (between 4:15-6:15 p.m.), 110 respondents were from Walker and 105 from Dunn-Barton. The cafeteria seating plan illustrates at which tables the students interviewed were sitting during the meal (Figure 3).

Students generally tended to sit in the section of the cafeteria associated with their dormitory and spend less time in the other sections of the dining room. Data analysis showed 42 percent of the students sit in the same section of the cafeteria 80-100 percent of the time. Of the 18 percent who sit in that section of the cafeteria less than 20 percent of the time, one-quarter of the students sat in the central section and 30 percent sat in the section opposite from the one in which most residents of their dormitory tended to sit.

Most students did not usually share their table with students from the other dormitory. Nearly three-quarters, 74 percent, spent less than 20 percent of the time sharing with members from the opposite hall. A mere 11 percent shared more than 40 percent of the time with students from the opposite hall.

Many of the students felt more at ease in their particular "territory" than they did in other parts of the cafeteria. Some 76 percent felt more comfortable in the particular section of the dining room in which they were sitting; of these, only 13 percent were in the central section. Of the remaining 24 percent who felt less comfortable, one-quarter were sitting in the central section, and slightly less, 24 percent, were sitting in the so-called opposite section.

Most of the students questioned believed that students generally tend to sit in particular places in the cafeteria. Sixty-three percent of the respondents believed students from the opposite hall generally tended to sit in certain areas and avoid others, whereas 12 percent did not believe this to be true.

Both from the map and statistics it appears that students from two residence halls generally tend to sit in opposite sections of the cafeteria--indicating a marked pattern of territoriality. This may be intentional or simply due to habit. Whatever the case, most students tend to feel more comfortable in a particular section, notably the one in which they sit most frequently. Only a limited number of people share with students from the opposite hall more than 20 percent of the time, with only a very small percentage sharing more than 40 percent of the time. Apparently, most students recognize that a segregation of students exists, and they believe students from opposite halls sit in identifiable areas and avoid other areas.

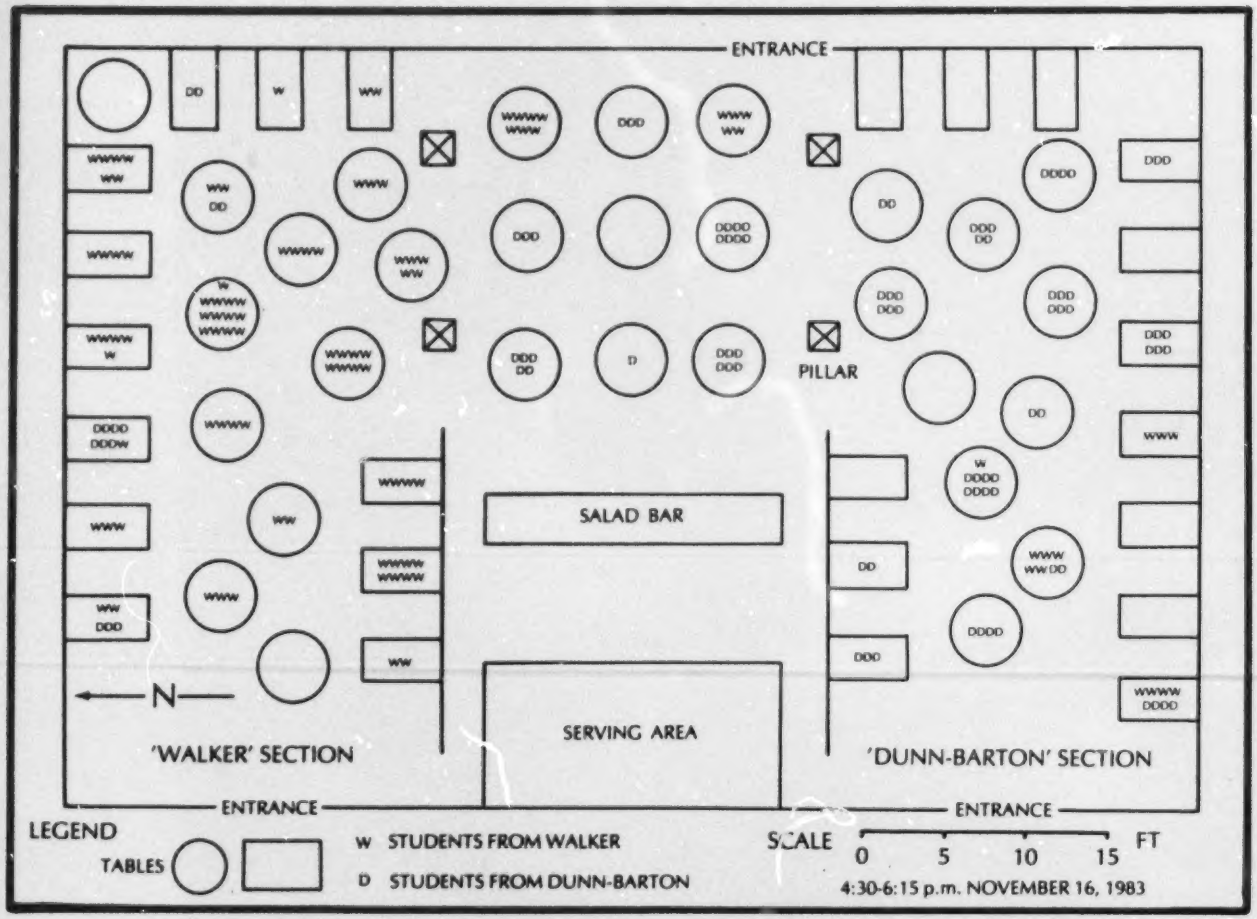

Fig. 3.--Seating choices of students in the common cafeteria for two proximate residence halls.

AN ANALYSIS OF THE SPATIAL ARRANGEMENT OF STUDENTS IN A CLASSROOM

Alcyone Saliba
Brasilia, Brazil

Among a university's nonresidential and nonrecreational facilities, classrooms are those areas most frequented by college students. Every student spends a large share of his or her time attending lectures. For instance, a student usually spends from 50 to 150 minutes occupying a classroom seat while attending a single class session. Generally, students randomly assign themselves to seats, unless the instructor specifies otherwise--such as during a test session when the instructor might arrange students according to their social security numbers.

The purpose of this study was to analyze the spatial distribution of students in the classrooms of Illinois State University. More specifically, the goal of this research was to investigate whether there is a tendency for students to seat themselves farthest from or closest to the front of the room.

The typical arrangement of classroom furniture can be described as a matrix of seats--that is, chairs or desks spatially arranged in rows and columns--facing the instructor's desk. Arrangement of classroom seats in circles, semi-circles, or parallel lines is also feasible but seldom occurs.

In order to investigate the problem, a survey based on purposive sampling was developed. The classroom number 114 of Schroeder Hall was selected as the observation unit. Two different sessions (one from 11:00 a.m. to 12:15 p.m. and the other from 2:00 to 3:15 p.m.) were surveyed on November 17, 1983; they will be referred to as Case 1 and Case 2. Two other sessions (one from 10:00 to 10:50 a.m. and the other from 11:00 to 11:50 a.m.) were surveyed on November 18, 1983. They will be referred to as Case 3 and Case 4, respectively. All four sessions were undergraduate general curriculum courses. Cases 1, 3 and 4 were World Geography classes and Case 2 was a (Geography of) Africa class. Hence, the students may be considered relatively representative of the whole student population.

In each observation period, the arrangement of the seats was sketched and the number of students occupying each row of seats was counted (Figure 4). Also, the students in the Case 3 and Case 4 sessions were asked to answer the following two questions: (1) "If given a choice, where would you sit in the classroom?" and (2) "What major reason do you have to choose the location in

question 1?" The first question provided the students with five options for answers (from row 1 to row 5); the second was an open question.

After all the information had been gathered, it was tabulated. To test for differentiation among the occupancy of the rows of seats, they were divided into three groups: (1) the front--that is, the first two rows of seats, (2) the center row of seats, and (3) the back--the last two rows of seats. An analysis of the occupancy rates of the three groups in all four class sessions surveyed revealed that the front rows of seats had the highest rate of occupancy in three of the four cases; there was no differentiation among the occupancy rates of Case 2. Also, a higher percentage of students chose seats in the front rather than in the back rows.

An analysis of the responses to the questions cited above revealed that, if given an option, 45 percent of the students would choose seats in the first two rows of chairs. This last finding reinforced the idea that most students would prefer to sit closer to the front of the classroom. The students' justifications for their choices included: "to hear the instructor better," "to see the board clearly," and "to pay attention and stay awake easily." In addition, the students believed that "those who sit in front get better grades," and that "teachers recognize students who sit in the front, which makes it easier to get to know the teacher--and therefore helps to get a better grade."

According to the results of this study, it seems students tend to choose seats located closest to the front of the room (and to the instructor) in an attempt to gain the most from a class session and to have their effort recognized. Because the absolute differences among the values compared were small and the sample size was very small, however, it is misleading to draw over-generalized conclusions from the findings.

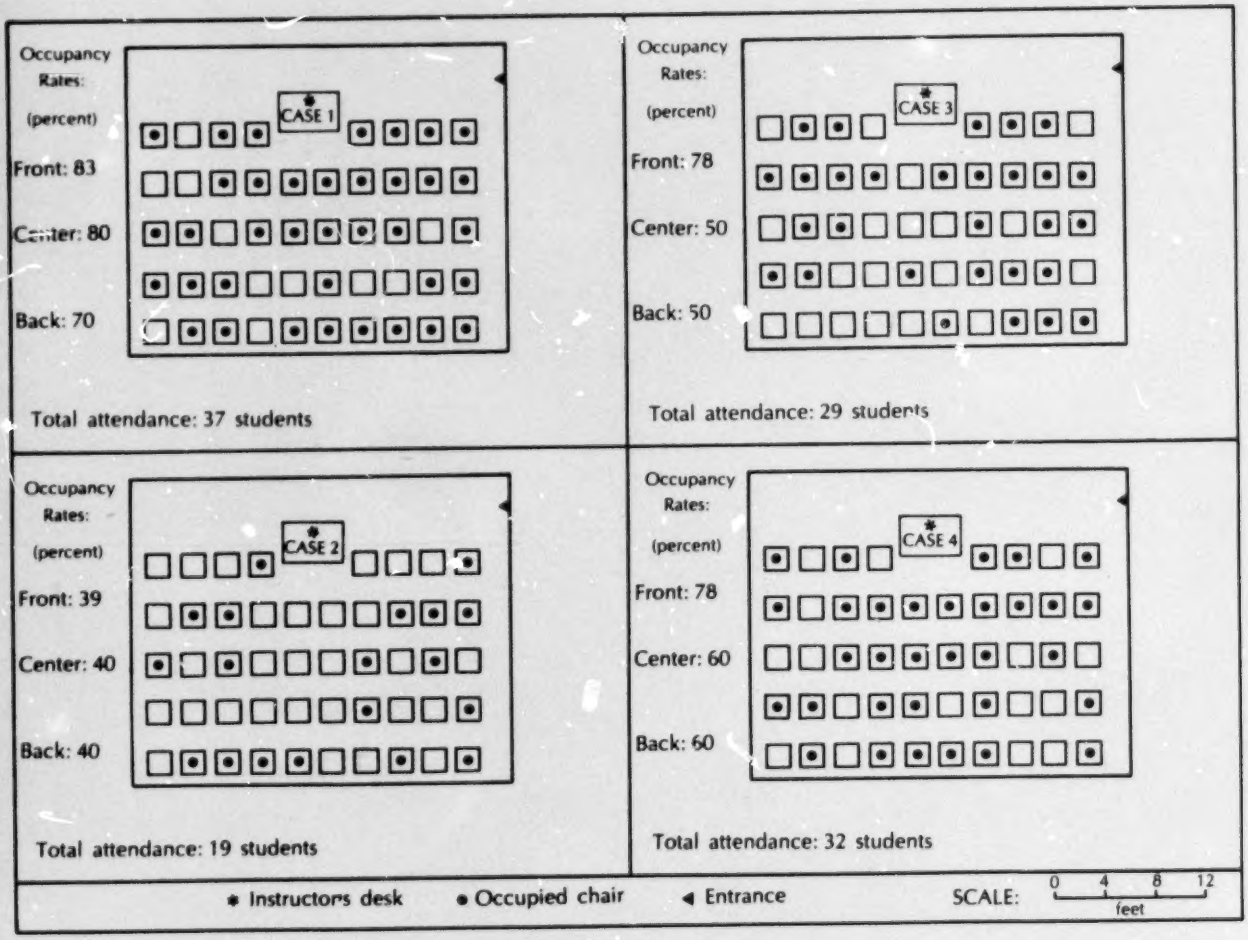

Fig. 4.--The arrangement of students in four Schroeder Hall classes (all Sch. 114) and the occupancy rates per groups of seats.

THE DISTRIBUTION OF INFORMAL SPORTS ACTIVITIES ON THE ILLINOIS STATE UNIVERSITY QUADRANGLE

Brad White
Galesburg, Illinois

At Illinois State University, the Quadrangle (Quad) is the location for a great deal of campus activity. This is due in large part to the fact that this area is considered to be the center of the school's academic world. If, however, the Quad is observed for any length of time, it will be seen that it has another major use to ISU students; it provides an area for informal games and sports activities. Generally, if the weather is good, any number of people can be found enjoying themselves on the Quad.

Since recreational use of the Quad is such a common phenomenon at ISU, I set out to answer a couple of intriguing questions. The questions I posed were: (1) "Are all areas of the Quad equally used for play?" and (2) "Do certain days of the week have more games than other days?" It was my hypothesis that there definitely would be certain areas of the Quad that had more games and sports activities on them than other areas. I also hypothesized that Saturday and Sunday would be the two days of greatest recreational usage by ISU students.

Four days from each of two consecutive weeks in November were used as the data collection period. Each week I observed the Quad in the afternoon for a certain period of time (usually one half hour) on Wednesday, Thursday, Saturday, and Sunday. I felt that this procedure would provide a representative sample of the sports activities that take place on the Quad.

The results of my investigation were close to what I had hypothesized. During the period of observation, a total of twenty-three games took place on the Quad. Most of these games were in one of four different areas with two of these areas utilized for a considerably greater number of games during this time (Figure 5). My investigation also showed that during the data collection period, the number of games on the weekends (thirteen on Saturdays and Sundays) was slightly higher than those during the week (ten on Wednesday and Thursdays).

There were, however, two other factors that I noted that could have affected the data I collected. First, during the two-week period that I observed the Quad, the only game that I saw was football. This might not be important to the hypotheses, but the absence of any other game such as softball,

soccer, or frisbee leads me to wonder where these games are played on the Quad. They might be played in totally different areas which would give my map a substantially different look. Furthermore, the weather during the observation periods was cool and rainy. This may have curtailed the activities on the Quad other than football, which seems to be played regardless of the weather. The people who usually play football may very well be accustomed to playing their sport on certain areas of the Quad and continued to play in those areas even though other games may have been suspended. Second, not once during my observation period did a football game cross the boundaries of a sidewalk. The sidewalks seemed to divide the Quad up into specific areas for play. If the games had crossed over the sidewalks, certain areas that did not have much activity might have been among the leaders in playing time.

In conclusion, I think it is obvious that the Quad is much more than an academic center for students at ISU. It is also a place for the students to forget about everything and engage in some form of recreation. I feel that my study was meaningful and worthwhile and that it might be interesting to do another study of this kind at another time of the year.

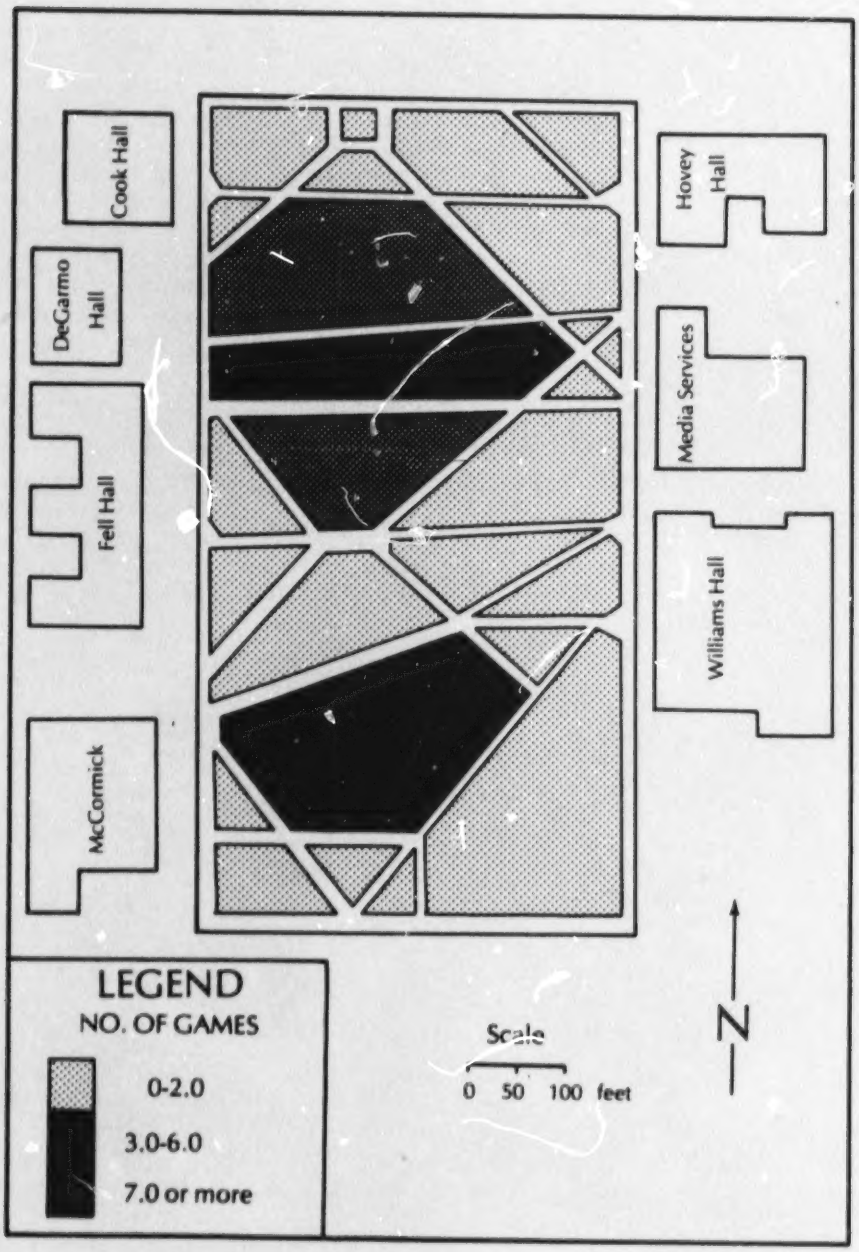

Fig. 5.--Spatial distribution of games on the ISU Quad during a portion of November 1983.

SECTION II

A MICROSTUDY OF PATHWAY USAGE AT ILLINOIS STATE UNIVERSITY

Robert Kappel
Lombard, Illinois

Illinois State University, in an attempt to alleviate the congestion on the pathways linking the buildings, delineated separate paths for bicyclists and for pedestrians. Separating traffic in this manner provides a measure of safety for both pedestrian and bicyclist if the designated paths are used as they were intended to be used. Many pedestrians, however, ignore the separation and walk on the bicycle paths, thus creating a potential hazard. The questions then raised are:

(1) What proportion of pedestrians travel on the bicycle paths?

(2) Are certain bicycle path segments utilized by pedestrians more often than other segments?

(3) Why do pedestrians travel on bicycle paths?

To help answer these questions, a study was conducted on the segment of the pathway system running on the east side and parallel with University Street from Dry Grove Street to the drive on the north side of DeGarmo Hall. A questionnaire asking the pedestrian his/her reason for traveling on the path was devised. The questionnaires were administered from the northwest corner of Rambo House to all pedestrians traveling either north or south on the bicycle path. The numbers of pedestrians walking on the sidewalk and the numbers on the bicycle path were tallied, and direction of travel noted. All these observations were made from the steps on the east side of the Student Health Service, directly across University Street from the study segment; in this way the potential effect of the surveyor's presence was kept to a minimum.

Approximately four percent of the total student population (19,500) was taken as the sample. Of this sample, 85 percent of the pedestrians were observed traveling either north or south on the sidewalk (Figure 6). Fourteen percent of those observed were northbound on the bicycle path, and of these approximately thirteen out of fourteen turned off the path to walk up the southwest stairs of DeGarmo Hall. Approximately one out of fourteen continued traveling north. Only one percent of the sampled pedestrians were observed traveling south on the bicycle path.

The questionnaires were administered to 21 percent of both the southbound and northbound pedestrians who were traveling on the bicycle path. When asked why they chose to walk on the bicycle path instead of the sidewalk, roughly four out of five persons explained that it was the quickest way to their destination. The others did not realize that they were walking on a designated bicycle path.

This microstudy of the pathway system at Illinois State University has shown that although most pedestrians choose to walk on the sidewalk, a number use the bicycle path in order to reach their destination more quickly. Since the sidewalk and bicycle paths are no more than twelve feet apart, it does not appear, however, that a significant amount of time can be saved by utilizing the bicycle path--at least not enough time to justify the increased danger caused by this improper usage. Perhaps through more distinct bicycle path markings and better informed pedestrians this potentially dangerous phenomenon may be curtailed.

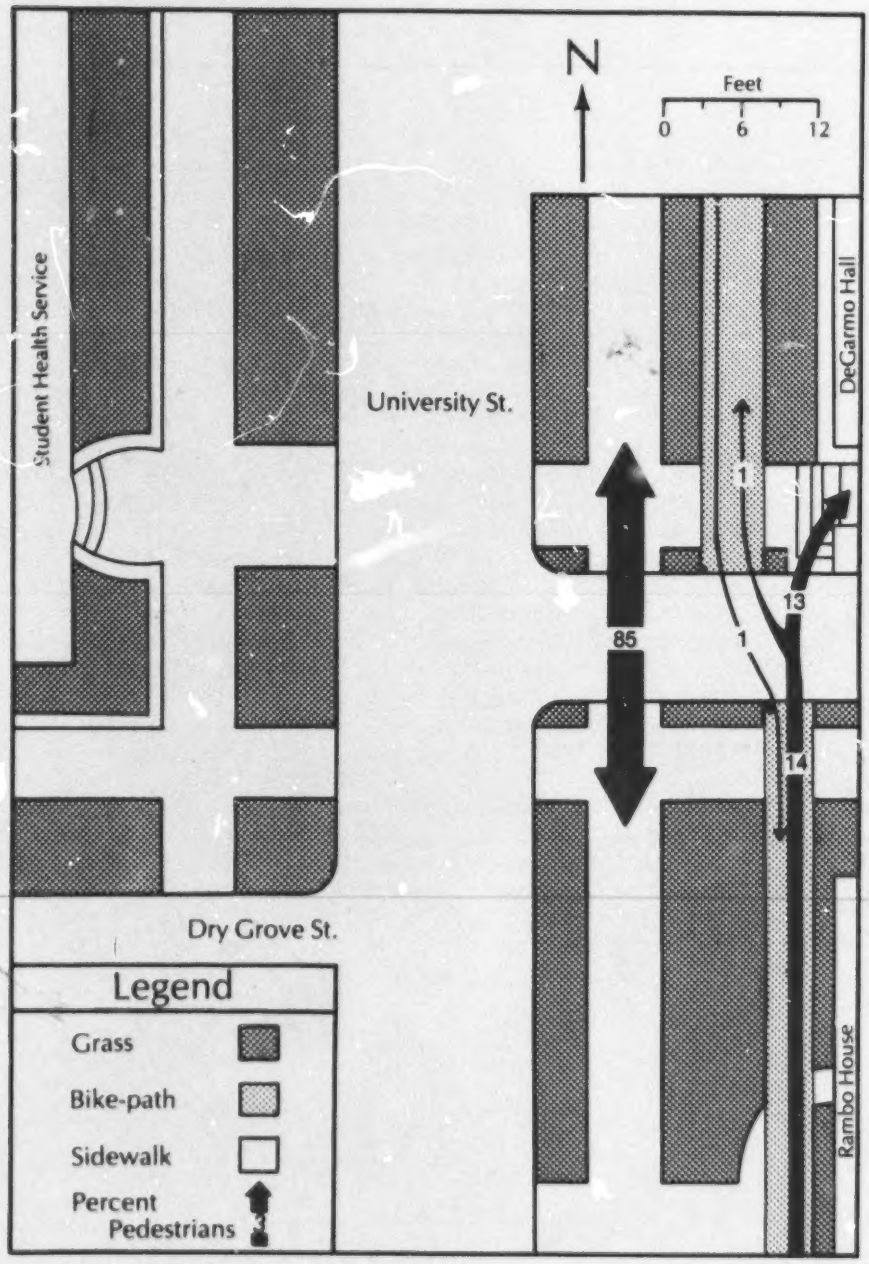

Fig. 6.--Use of parallel sidewalk and bicycle path by pedestrians near DeGarmo Hall.

JAYWALKERS ON UNIVERSITY STREET NEAR METCALF SCHOOL

Marco Nunes
Rio de Janeiro, Brazil

Jaywalking on University Street in front of Metcalf School is very common. Most of the jaywalkers on University Street are students from Illinois State University. They prefer to use a diagonal route to cross the street rather than the crosswalk located just to the north. According to The Illinois Vehicle Code (1982), page 138: "Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right of way to all vehicles upon the roadway." Thus the jaywalker is responsible for any accident that might happen to him or her while crossing the street.

Pedestrian traffic was observed during several "rush" periods on Monday, November 14, 1983. Some of the jaywalkers were asked questions regarding their behavior. I found that four out of five persons crossing University Street from the east in the area of observation were jaywalkers (Figure 7). Most of those questioned think the crosswalk is out of their way. They care not about their personal safety in this matter. It appears that the diagonal character of the sidewalk leading toward the street encourages users to continue in a southwesterly direction across University Street despite the absence of a crosswalk at that point.

The diagonal sidewalk may be the spatial element that encourages people to cross the street illegally. The jaywalkers may be considering this section of the street as an extension of the diagonal sidewalk. Most cross the street without regard for safety and pedestrian policies. It was also observed in the area of study that older people are more willing to respect the crosswalk than are younger people.

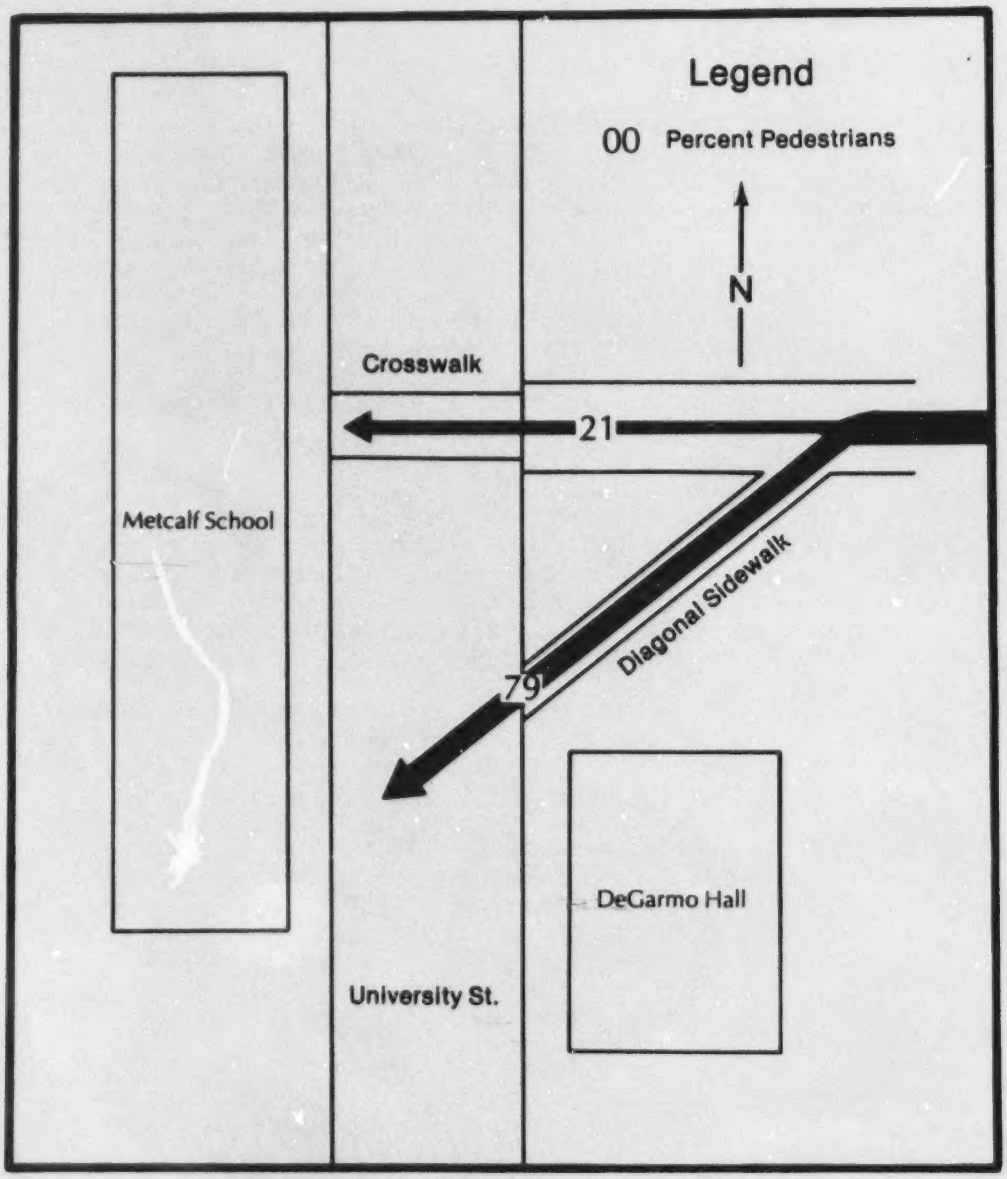

Fig. 7.--Legal and illegal crossing of University Street by westbound pedestrians near Metcalf School.

STUDENTS' DESIRE LINES AFTER LEAVING THE NORTHWEST EXITS OF THE CENTER FOR THE VISUAL ARTS

Mike O'Shea
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Students can be very predictable. A student will travel the easiest route when faced with a choice between a fast, easy way and a long, slower way. The Quad at ISU has sidewalks just about everywhere, but one place without a direct sidewalk is just north of the Center for the Visual Arts (CVA). A student leaving the northwest exits at CVA can travel north for about one hundred feet until the sidewalk forks. This is the decision point. One fork goes due west to McCormick Hall; the other fork runs northeast towards Williams Hall. Any student who leaves the northwest exits of CVA does not have a straight sidewalk to use if the student wants to go toward the north end of the Quad or beyond.

A pair of hypotheses were formulated regarding this matter. The first is that a significant number of students will avoid using the sidewalks when travelling to the north end of the Quad. The second is that a majority of students who cut across the Quad will favor the construction of a sidewalk from CVA to the north end of the Quad. Field observation and a survey were necessary to test these hypotheses.

I conducted my field work on the 17th and 18th of November 1983. There were four different observation and survey periods. The first one was Thursday the 17th from 1:45 to 2:05 p.m., the second period was Friday the 18th from 9:40 to 10:05 a.m., the third 10:40 to 11:05 a.m. on Friday, and the fourth period was from 1:05 to 2:05 Friday afternoon. A total of forty-nine pedestrians were observed. After reaching the decision point, nineteen students travelled straight to the north end of the Quad (Figure 8). Fifteen students took the desire line to Fell Hall. Twelve students went northeast on the sidewalk toward Williams Hall and three students took the sidewalk to McCormick Hall. This means that 69 percent of the students in the sample avoided the sidewalks and cut across the Quad.

The questionnaire portion of the study consisted of three questions. One was about the students' destinations. The second question was whether the students felt it was easier to cut across the Quad rather than taking the sidewalks. The third question was whether the students who cut across the Quad felt that a sidewalk should be built. I questioned a total of twenty students. All twenty were going to the north end of the

Quad. Eight people said they were going to the Student Union. Seven people said they were going to their homes, which are located north of campus. The other five were going to Schroeder Hall or Milner Library. These students would rather walk the shorter distance to the north end of the Quad than take the longer route of the sidewalks. All twenty people thought it was easier to cut across the Quad rather than take the sidewalks. But many students said it depended on the weather. If it is raining, some students do not like to cross the Quad because it gets too muddy. Also, if there is snowcover, then some students would rather walk on the sidewalks. In the third question I asked about the necessity of a sidewalk leading north from the decision point. Sixteen students thought a sidewalk was necessary; four did not think is was necessary. The students who thought it would be a good idea said it would make the walk quicker when going north. The four who did not want a sidewalk to be built were concerned with building costs; a couple of these students thought ISU already has too many sidewalks.

The results show that many students avoid the sidewalks when travelling across the Quad. They not only go north, but they also go toward Fell Hall. Therefore, the first hypothesis can be accepted. The results show that sixteen out of twenty students think a sidewalk is necessary, and all twenty think it is easier to cut across the Quad. Although twenty people comprise a small sample, it seems likely the second hypothesis can be accepted. The small sample has a large majority in favor of the sidewalk, and it is probable that this trend would continue if a larger sample were taken, although precise conclusions cannot be drawn.

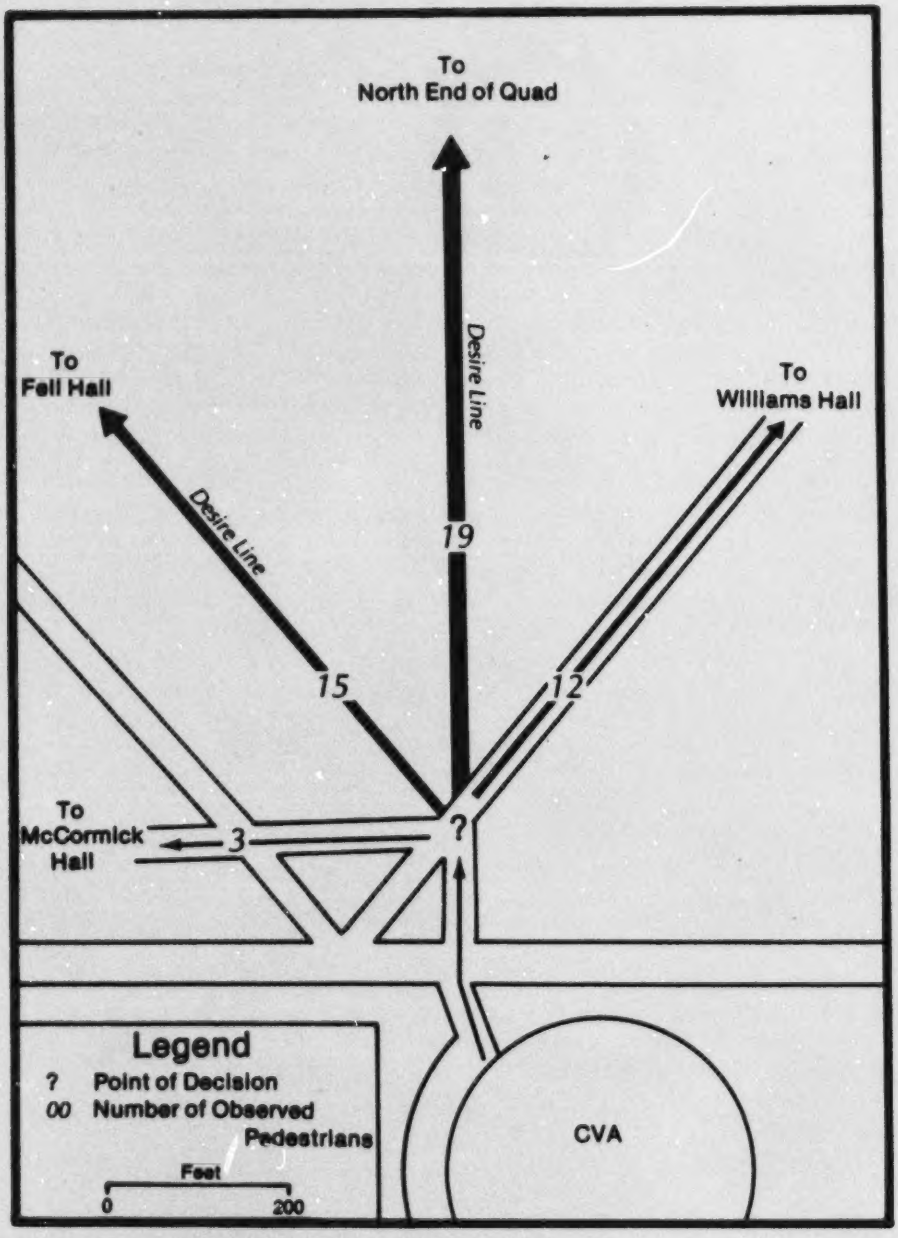

Fig. 8.--Routes chosen by pedestrians after arriving at the Point of Decision from the northwest exits of CVA (Center for the Visual Arts).

TO WALK OR NOT TO WALK: THAT IS THE QUESTION

Sandy Paulson
Bridgeview, Illinois

Everyone is taught at an early age to look both ways before crossing a street and to walk under supervision of the "Walk" sign. As grown-ups, however, these rules are heeded less, and many people take chances by dashing across a street before a car comes. The question is, therefore, do people really obey the "Walk" and "Don't Walk" signs? The purpose of my study was to examine this question.

The study was conducted at the intersection of College Avenue and University Street--an intersection that is totally surrounded by the ISU campus. This was an excellent location because there were both people and cars continually crossing. Time and day of the academic week were randomly selected, but the ten minute period between classes was omitted from the study because the mass of people during those times made it impossible for one person accurately to record observations. Three hypotheses were formulated. Each was tested and carefully analyzed. The observations (count) occurred on Wednesday, November 16, 1983. To get a representative sample, counting was spread over three periods consisting of fifty minutes each--the first from 11:00 to 11:50 a.m., the second from 2:00 to 2:50 p.m., and the third from 3:00 to 3:50 p.m.

The first hypothesis was: Do a majority of people cross the street when they should be waiting for the proper traffic signal? The tally sheet I designed had two vertical columns marked "Walk" and "Don't Walk", and four horizontal rows marked "North," "South," "East," and "West" to designate the four sides of the intersection. When a person crossed a road with a "Walk" sign, it was marked under the "Walk" column for the appropriate side of the intersection, and when someone crossed a road with a "Don't Walk" sign, it was marked under the "Don't Walk" column. After marking down each person who crossed for each period, the marks were tallied to find the total number of people who passed through the intersection when they should and when they should not. Surprisingly, for each time period, the number of people who crossed a road with a "Walk" sign outnumbered those who crossed a road with a "Don't Walk: sign. Adding all three time periods together, with a total number of 1,632 people counted, 870 people crossed when they should have crossed. This number is clearly more than one-half of the total number of people observed. Therefore, the first hypothesis was not accepted, because a majority of people crossed with the "Walk" sign.

The second hypothesis was: Are certain sides of the intersection crossed more often than others? By comparing the total number of people who crossed each side of the intersection, this question could be answered. It was found that the south and east sides of the intersection had much more pedestrian traffic. This was true for all three time periods. For example, in the first time period, out of a total of 510 people who crossed, 384 people crossed on either the south or east side of the intersection. Therefore, the second hypothesis could be accepted because, for each time period, the south and east sides of the intersection was crossed more often than the north or west sides of the intersection.

The third hypothesis was: On certain sides of the intersection, is the percent of people who cross when they are supposed to and people who cross when they are not supposed to nearly equal? To test this hypothesis, percentages were calculated. The simple calculations were done for the people who crossed while a "Walk" sign was illuminated and for each side of the intersection; the same calculations were done for those people who crossed with a "Don't Walk" sign.

Since there were three time periods, the averages of each percentage were used. These results can be found on the map provided (Figure 9). For both the north and south sides of the intersection, there was a much higher percentage of people who crossed when a "Walk" sign was on; and for the east and west sides of the intersection, the percentages were nearly equal for both the people who crossed when a "Walk" sign or when a "Don't Walk" sign was illuminated. In lieu of these results, the third hypothesis was accepted. Certain sides of the intersection did, indeed, have an almost equal percentage of people who crossed when they were and were not supposed to cross.

Since all the hypotheses have been tested, it is now time to answer the question, "Do people really obey the "Walk" and "Don't Walk" signs? The results regarding the first hypothesis suggest that people obey the signs because there were more people who crossed when they were supposed to cross. The results from testing the second hypothesis could mean that more people crossed the south and east sides of the intersection because they were leaving or coming to the central part of the ISU campus. This assumption is only an educated guess, and the hypothesis was tested simply to find a spatial distribution. With respect to the third hypothesis, the percentages for the east and west sides of the intersection were perhaps similar because of the proximity of other traffic lights on College Avenue which affect the amount of traffic. At times there is no traffic coming through on College Avenue because vehicles are

detained at other traffic lights farther east or west. If given the chance, I suspect more people would cross the street regardless of the "Don't Walk" sign.

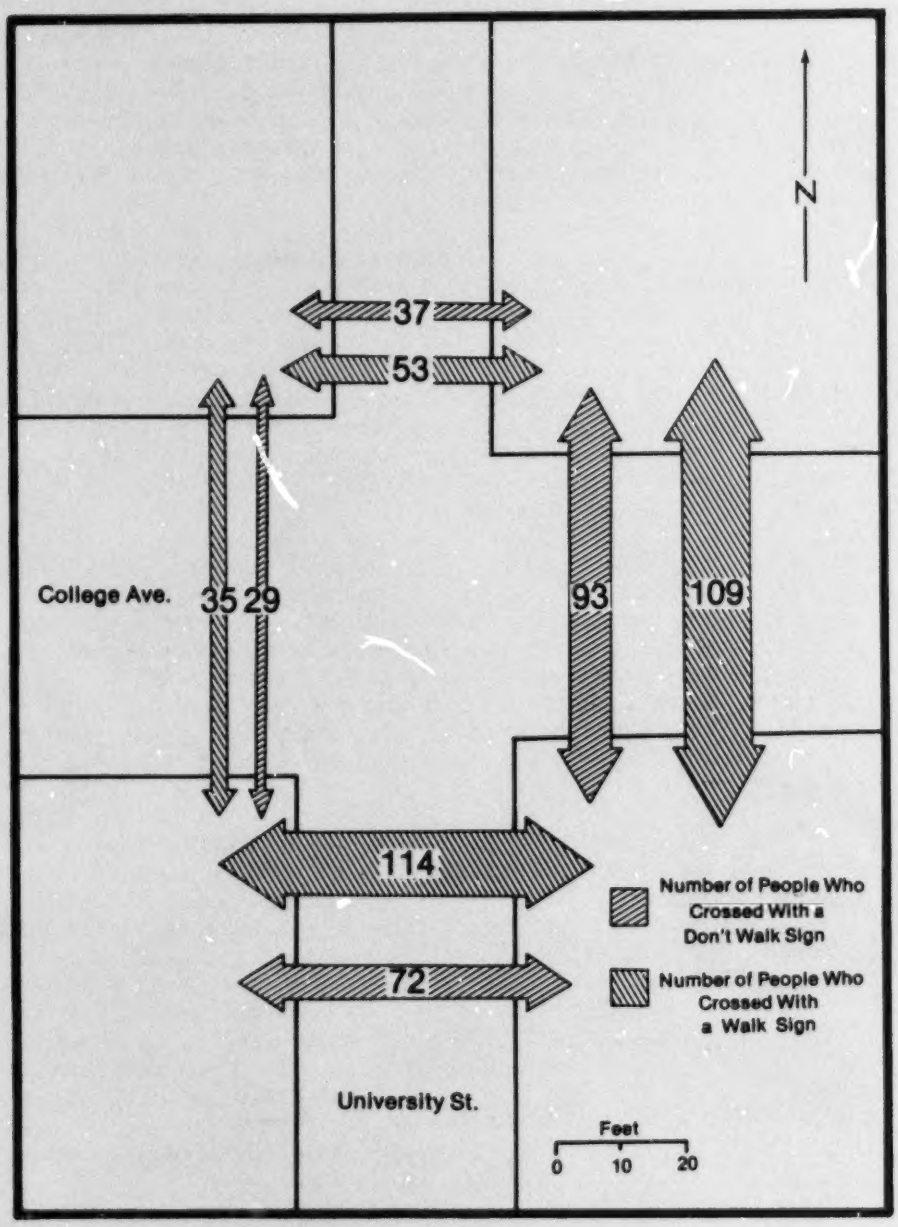

Fig. 9.--Legal and illegal use of crosswalks at the corner of College Avenue and University Street.

SECTION III

TWO-WHEELING TO CLASS: A STUDY OF BICYCLE USAGE

Mirga Rimavicius
Chicago, Illinois

A bicycle is an important mode of transportation, especially for a college student. I conducted an investigation regarding bicycle usage on the campus of Illinois State University. The purpose of my study was to determine if there was a threshold distance from ISU's campus for bicycle transportation. In other words, I tried to determine if bicycle riders tend to live beyond some identifiable minimum distance.

The investigation included personal observation and a one-question interview. My research site was the bike racks located on the east side of Schroeder Hall. Once the students directed themselves to the racks and started to lock up their bikes, I proceeded to interview them. "Where did your trip, from the start of the day, originate?" This was the question I asked all seventy participants. I found the time between classes was ideal for observation and questioning. In a period of three days, I conducted fifteen minutes of fieldwork once every hour for three consecutive hours.

Weather seemed to affect the moods of people. Whenever the weather was unpleasant, participants answered the one-question interview as quickly as possible. I found that they were inclined to be quite gloomy and sullen. One girl, while frustrated and upset, commented that her roommate's car did not start, so she had to use her bike on such a cold day. On the other hand, when the weather was bright and sunny, people tended to be quite friendly, smiling, and gladly responded to the question.

After analyzing the data, I had to acknowledge that what I originally sought to investigate did not exist. Instead of a threshold distance I found in my sample that the number of bicycle riders first increased, then decreased as distance from Schroeder Hall increased. Twenty-two out of the seventy respondents (31 percent) came from within half a mile of Schroeder Hall (Zone 1 in Figure 10). From Zone 2 came 52 percent or thirty-six of the seventy students. They lived beyond a half mile but closer than a mile. And finally, from Zone 3, came 17 percent (twelve out of seventy respondents). Their journeys originated more than one mile but less than two miles from Schroeder Hall. No students interviewed had ridden their bicycles to campus from beyond the edge of Zone 3.

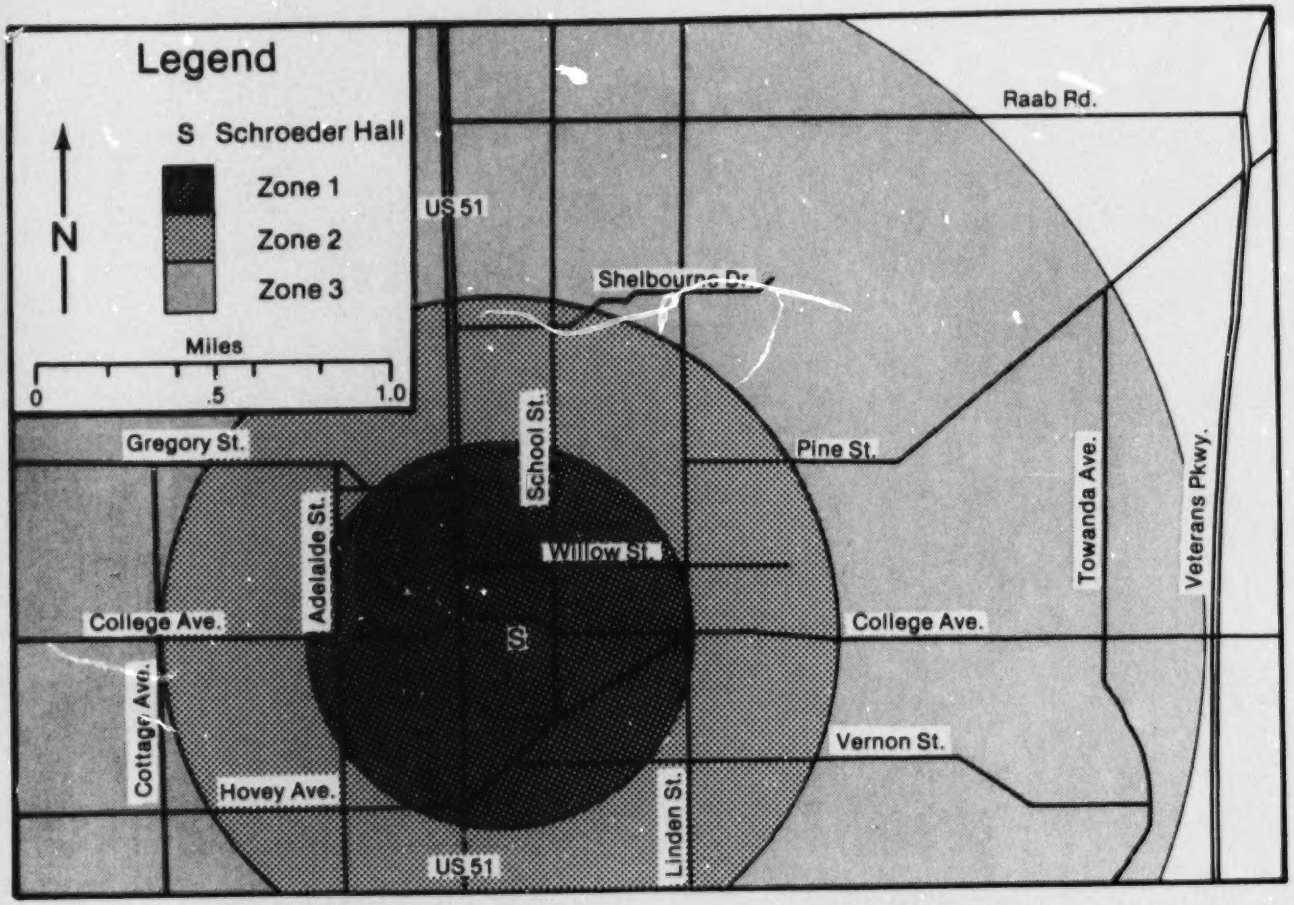

Fig. 10.--Commuting distances from Schroeder Hall, direct line, in miles. Zone 1 = 0-.49 miles, Zone 2 = .5-.99 miles; Zone 3 = 1-2 miles.

AN ANALYSIS OF THE USE OF THE FLOORS OF MILNER LIBRARY FOR STUDY PURPOSES

Pamela Owens
Carlinville, Illinois

This is an essay dealing with spatial relations between humans and their activities. The hypothesis to be tested was as follows: Do Greeks (members of social fraternities and social sororities) tend to study on a particular floor in Milner Library? To gather the needed data, on November 14 and 16, 1983, around 9 p.m., I questioned people leaving the library. For the 305 randomly picked students that I interviewed, there were three questions: What is your class or year in college? What floor did you study on last? Do you belong to a social fraternity or social sorority?

All six floors of the library had been used by at least some of the 305 informants (Figure 11). Nearly equal numbers of students studied on the first (58), fourth (62), and sixth (59) floors while slightly fewer chose the fifth (51) and considerably fewer used the third (39) and second (36). Greeks preferred the sixth (16); but it was followed closely by the third (14), fourth (14), fifth (11), and first (11). Far below these were the General College Library floor, the second, with three Greeks. For readers not familiar with the character of the other floors of Milner here is a breakdown: first--education, psychology; third--history, law; fourth--social science; fifth--science; sixth--humanities.

As I had suspected from previous observation, Greeks made up a larger proportion of those studying on the third floor (36 percent) than they did on any of the other five floors. One may compare that 36 percent with the Greek percentages of 27 on the sixth, 22 on fifth, 21 on fourth, 19 on first, and just 8 on second. Does the fact that there are no library employees stationed on the third floor at night have anything to do with the Greek preference for that floor? I did not investigate this matter.

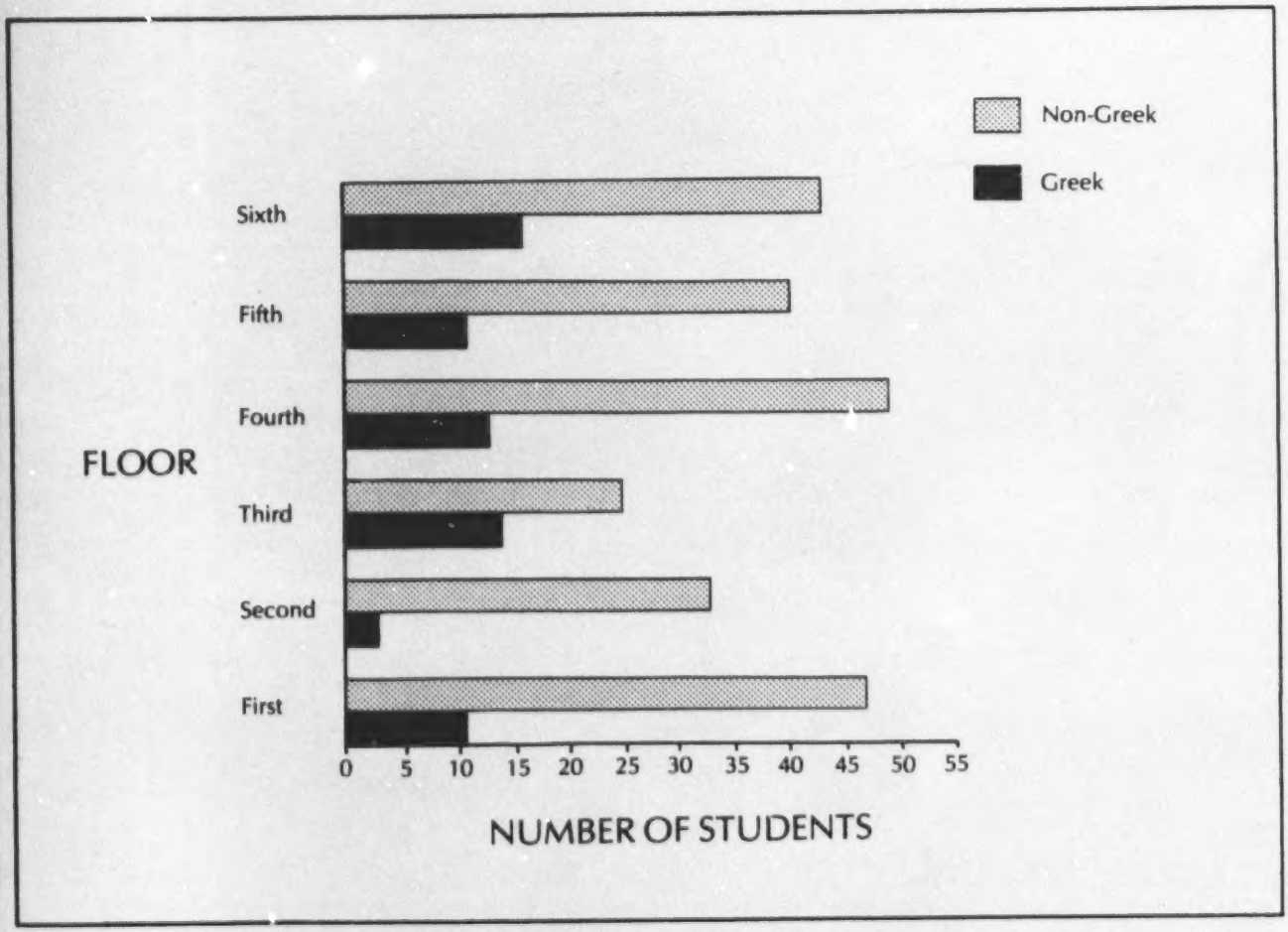

Fig. 11.--Study locations of students in Milner Library.

MCDONALD'S VERSUS CROCK 'N ROLL: A QUESTION OF TIME

Edward Barry
Park Forest, Illinois

On November 13 and 17, 1983, I conducted a survey of the patrons at two eating establishments--McDonald's and Crock 'N Roll--in the Bone Student Center. The purpose of this undertaking was to determine the validity of the following two hypotheses: (1) the class standing (year) of the average patron at Crock 'N Roll will be higher than that of an average partron at McDonald's; and (2) the mean amount of time spent at Illinois State University will also be higher for patrons of the Crock 'N Roll.

I interviewed thirty customers at each of the establishments and asked these three questions:

1. Are you a student at Illinois State University?
2. How long have you either been working at or attending the university?
3. What is your class standing (year) at the university?

The survey was conducted during the same time period (10:00 to 11:00 a.m.) on each of the days. I chose this time period because all dormitory cafeterias are then closed, and the dormitory residents must go elsewhere to obtain food.

The interviews went quickly and without incident, and the results directly support my two hypotheses (Figure 12). Acceptance of the hypotheses, I feel, is the product of a number of factors. First, my personal experiences dictated my original hypothesis formation. I believe myself to be a typical student, and I did not venture into the Crock 'N Roll on any regular basis until I was an upperclassman. Second, the location of the two restaurants makes McDonald's much more accessible than the Crock 'N Roll. McDonald's is located in the highest traffic volume area of the Student Center. To reach the Crock 'N Roll one must go downstairs and to the edge of the building. A newer student may not be as inclined to search for a place to eat, preferring to stay in a more familiar area. My third reason for the demographic differences between the two establishments also deals with familiarity. It seems that everyone knows what a McDonald's is like. The food and surroundings of all McDonald's have a high degree of homogeneity. A newer student may opt for a familiar atmosphere rather than venturing into a unique establishment such as the Crock 'N Roll. Fourth, and finally, I

believe the type of food served at each of the eateries plays a major role in attracting patrons. The food served in the Crock 'N Roll tends to have a disturbing resemblance to the food served in the cafeterias of the ISU dormitories. Most freshmen and sophomores live in dormitories and are subjected to dormitory food three times daily. I believe a dormitory resident would have little, if any, desire to purchase food which he or she is served three times a day. Upperclassmen, on the other hand, primarily live off-campus and are in need of inexpensive food; the Crock 'N Roll fulfills this need.

The rationalizations I provided for the results of the survey are nothing more than personal theories. One cannot, however, dispute the figures. There is unquestionably a difference in the class standing and time spent at ISU among the patrons of the two establishments. The Crock 'N Roll appears to appeal to a clientel more familiar with the university than does McDonald's. On the other hand, McDonald's appears to appeal to students who live in campus dormitories.

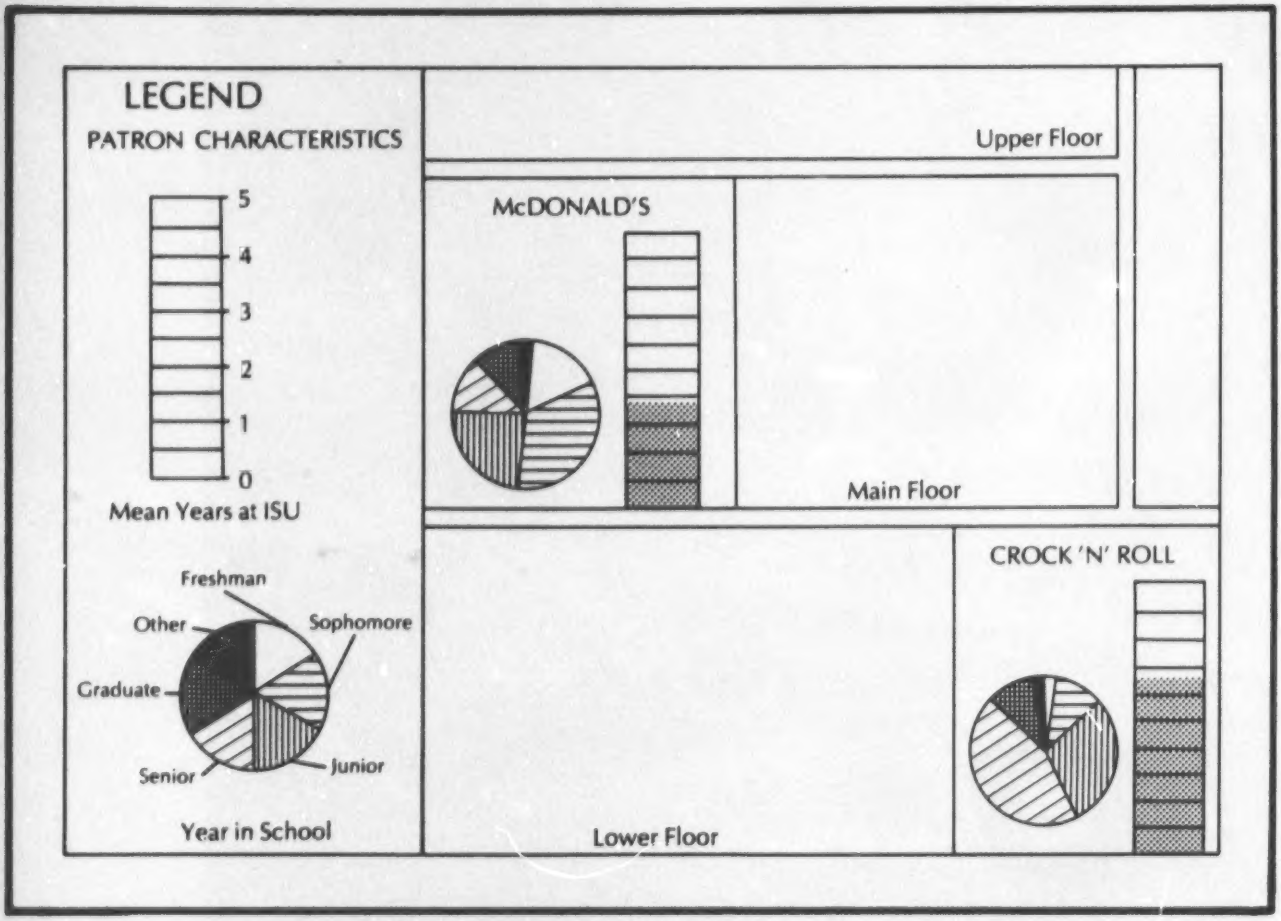

Fig. 12.--Characteristics of restaurant patrons, Bone Student Center.

A PERSONAL CHOICE IN MILNER LIBRARY: THE STAIRS VERSUS THE ELEVATOR

Michael Jagosh
Hillsboro, Illinois

Life on any college campus is often fast-paced and full of decisions. People are confronted with a variety of problems that require instant judgements. Even the mere choice between walking up several flights of stairs or riding the elevator requires making decisions. It is this type of assessment in our everyday lives that usually is not given much consideration.

This case study probes the possibility of a threshold, beyond which most people would consider using the elevator instead of walking. I am concentrating the research on a specific building on the campus of Illinois State University. This building, Milner Library, is a six-story structure wherein a large variety of people congregate. The library is unusual in that the main entrance is on the second level. On this level are the General College Library, the card catalogue, and other frequently used materials. One must enter through this base level in order to proceed to another floor. My hypothesis is that there should be a significant number of people using the stairs to the first, third, and fourth floors; a threshold between the fourth and fifth floor; and a marked decrease in stairway use to the fifth and sixth floors.

The study focused on the flow of people who entered the atrium where elevators and staircases are located. I proceeded to enter the elevator at the base level once every ten minutes. Once aboard, I counted all the people who entered the elevator at the base level, and I noted the floors on which they disembarked. Any handicapped people who must ride the elevator were excluded from the survey. I only included those people who entered at the atrium, therefore excluding persons either changing floors or leaving the building. Between elevator rides, I inconspicuously followed individuals up the stairs to their destination floor. It was unnecessary to follow those walking down from the base level, as there was only one floor (the first) to which they could go.

The study consisted of observations from November 15 to November 19 and ran for periods of one hour each between 7:00 and 8:00 p.m., which the library staff consider to be the busiest time. Altogether, I observed 446 people; 243 of them used the stairs and the other 203 rode the elevator. I believe this is a representative sample and that my hypothesis is acceptable (Figure 13). The dramatic decrease in the percentage of people who chose to walk up to the fifth and sixth floors provides evidence in support of my hypothesis.

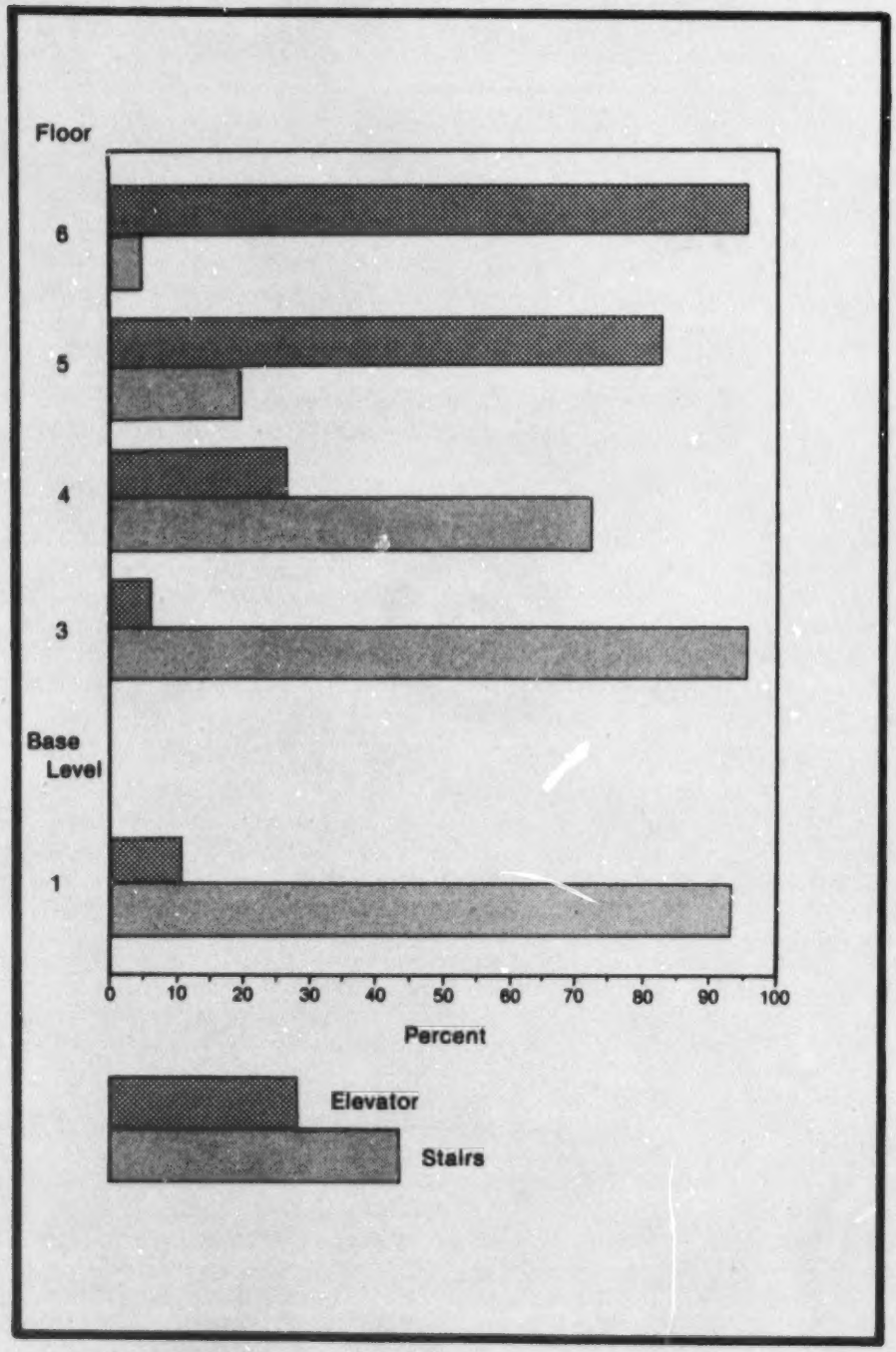

Fig. 13.--Percent of students using the stairs versus the elevator from base level (Floor 2) to specific floors at Milner Library.

OTHER PUBLICATIONS

1973 Commentary on a Corn Belt Countryside: A Self-Guided Rural Experience by Michael D. Sublett; William D. Walters, Jr.; and Southard M. Modry. 123 pages plus bibliography. Maps. Out of print.

1977 Rural Residential Subdivisions in McLean County, Illinois by Michael D. Sublett and Carleton C. Cox. A four-color map. Free.

1980 Glimpses, Comments, and Geography: A Mini Self-Guided Rural-Urban Tour by Thomas J. Gargano. 35 pages plus bibliography. Maps. Free.

1980 East Central Illinois: A Look Into the Future by Douglas K. Meyer and Michael D. Sublett. 28 pages plus bibliography. Maps. Out of print.

1980 Computer Mapping at ISU: A Primer by Donald E. Luman. 5 pages. Color and black & white maps. Oversize. Out of print.

1981 Atlas of Friendly Footmaps in London and Train Trips in England by E. Joan Miller. 42 pages. Looseleaf in envelope. Maps. $2.00 Reprinted in 1984.

1982 Community Perception of Hazardous Materials: Transportation and Risk by George F. Aspbury. 21 pages plus questionnaire. Map. $1.00.

1982 A Guide to the Geology of the Danvers-Normal Area by David L. Reinertsen and Robert S. Nelson. 29 pages plus background on the Pleistocene and ground water. Maps. Free.

1984 A Perspective on Careers in Geological Science and Geo-Technology by John W. Foster. 25 pages. $2.00. (Free to current majors.)